

```

*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.0000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
  /PLOT NETWORK
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
  /MISSING USERMISSING=EXCLUDE .

```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:21:16
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\MyDocs\Science\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
	Missing Value Handling	Definition of Missing
Cases Used		Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax	MLP Leading_D (MLEVEL=N) BY First_D Second_D /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0 /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50) /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALED ONJUGATE LAMBDAINITIAL=0.0000005 SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000 /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE /PLOT NETWORK /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15) MAXEPOCHS=AUTO ERRORCHANGE=1.0E-4 ERRORRATIO=0.001 /MISSING USERMISSING=EXCLUDE .	
Resources	Processor Time	00:00:00.52
	Elapsed Time	00:00:00.53

Case Processing Summary

		N	Percent
Sample	Training	33	63.5%

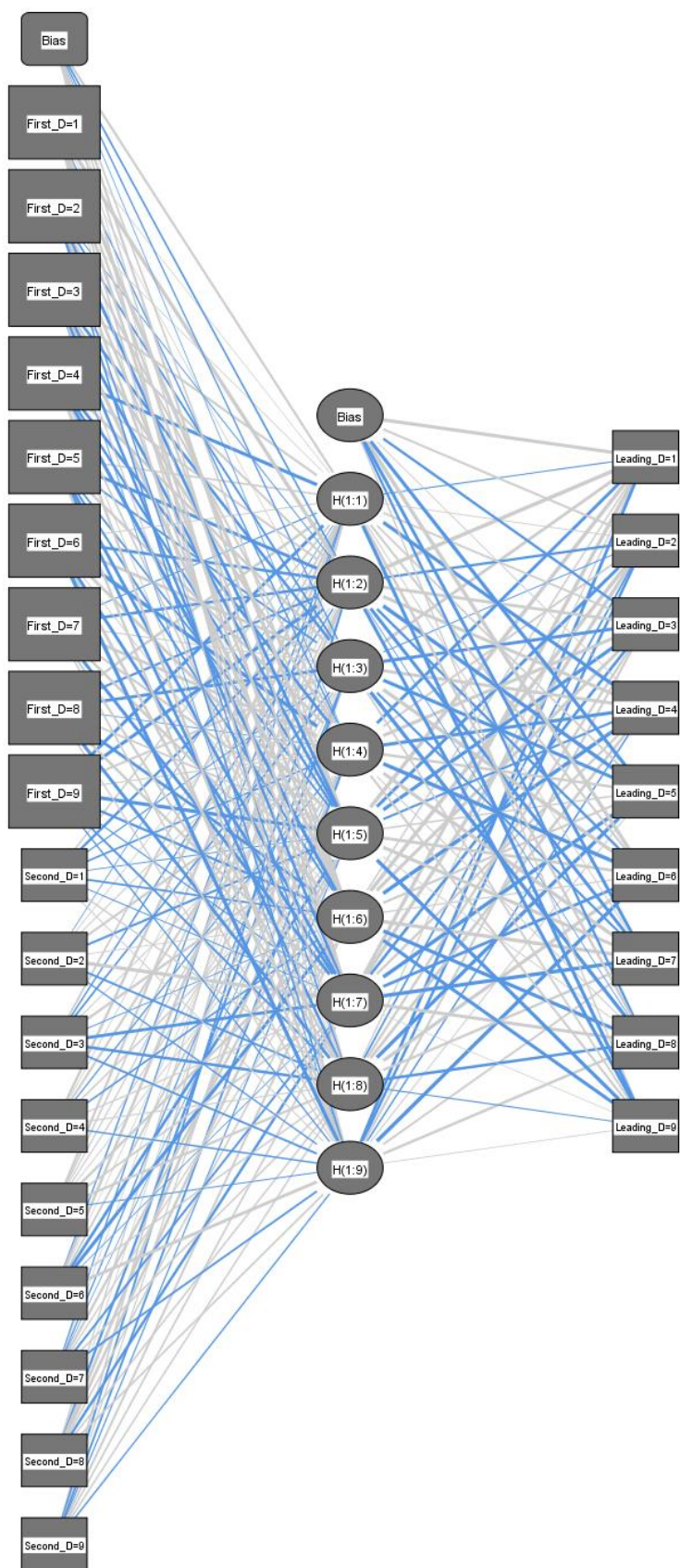
Testing	19	36.5%
Valid	52	100.0%
Excluded	52	
Total	104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		18
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		9
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
		Number of Units	
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

Hidden Layer 1	(Bias)																	
	H(1:1)																	
	H(1:2)																	
	H(1:3)																	
	H(1:4)																	
	H(1:5)																	
	H(1:6)																	
	H(1:7)																	
	H(1:8)																	
	H(1:9)																	

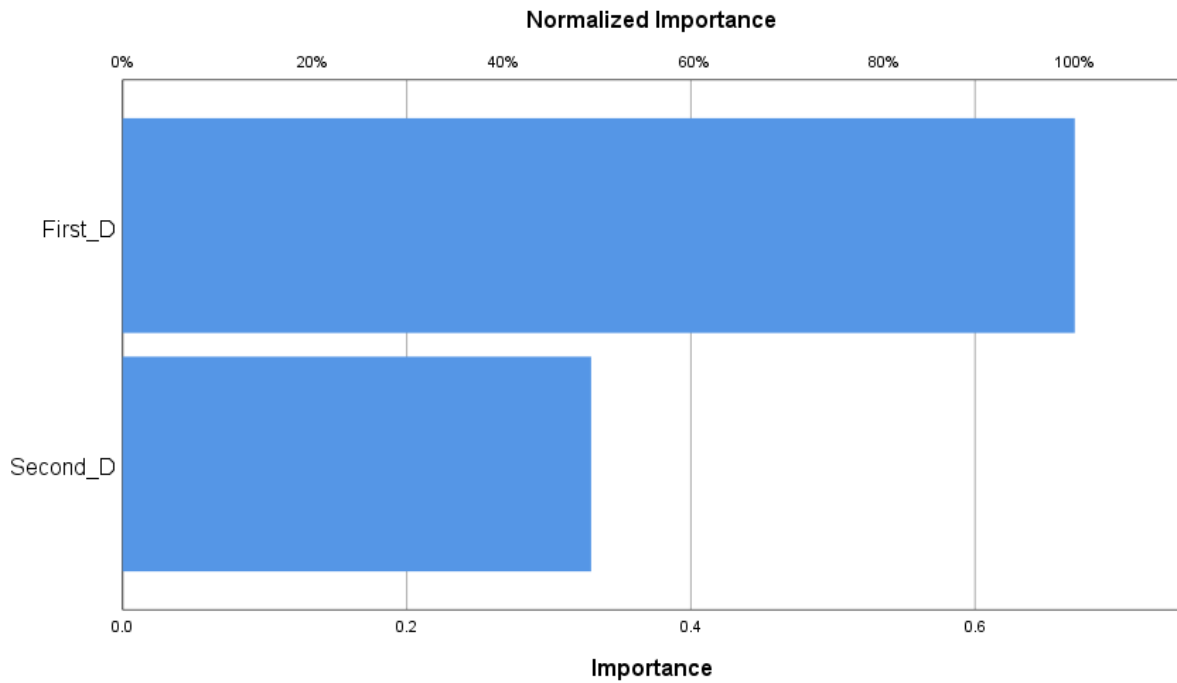
Classification

Sample	Observed	Predicted									Percent Correct	
		1	2	3	4	5	6	7	8	9		
Training	1	10	0	0	0	0	0	0	0	0	0	100.0%
	2	0	4	0	0	0	0	0	0	0	0	100.0%
	3	0	0	1	0	0	0	0	0	0	0	100.0%
	4	0	0	0	4	0	0	0	0	0	0	100.0%
	5	0	0	0	0	1	0	0	0	0	0	100.0%
	6	0	0	0	0	0	8	0	0	0	0	100.0%
	7	0	0	0	0	0	0	1	0	0	0	100.0%
	8	0	0	0	0	0	0	0	1	0	0	100.0%
	9	0	1	0	0	0	0	0	0	0	2	66.7%
	Overall	Percent	30.3%	15.2%	3.0%	12.1%	3.0%	24.2%	3.0%	3.0%	6.1%	97.0%
Testing	1	7	0	0	0	0	0	0	0	0	0	100.0%
	2	0	0	0	0	0	0	0	0	0	0	0.0%
	3	0	1	3	0	0	0	0	0	0	0	75.0%
	4	0	0	0	0	0	0	0	0	0	0	0.0%
	5	0	0	0	0	0	0	0	0	0	0	0.0%
	6	0	0	0	0	0	3	0	0	0	0	100.0%
	7	0	0	0	0	0	0	1	0	0	0	100.0%
	8	0	0	0	0	0	0	0	2	0	0	100.0%
	9	0	0	0	0	0	0	0	0	0	2	100.0%
	Overall	Percent	36.8%	5.3%	15.8%	0.0%	0.0%	15.8%	5.3%	10.5%	10.5%	94.7%

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.670	100.0%
Second discourse in text	.330	49.2%



```

*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.0000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
  /PLOT NETWORK
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
  /MISSING USERMISSING=EXCLUDE .
  
```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:21:29
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Science\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
	Missing Value Handling	Definition of Missing
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax

```
MLP Leading_D
(MLEVEL=N) BY First_D
Second_D
/PARTITION
TRAINING=7 TESTING=3
HOLDOUT=0
/ARCHITECTURE
AUTOMATIC=YES
(MINUNITS=1
MAXUNITS=50)
/CRITERIA
TRAINING=BATCH
OPTIMIZATION=SCALEDG
ONJUGATE
LAMBDAINITIAL=0.0000005
SIGMAINITIAL=0.00005
INTERVALCENTER=0
INTERVALOFFSET=0.5
MEMSIZE=1000
/PRINT CPS
NETWORKINFO SUMMARY
CLASSIFICATION
SOLUTION IMPORTANCE
/PLOT NETWORK
/STOPPINGRULES
ERRORSTEPS= 1
(DATA=AUTO)
TRAININGTIMER=ON
(MAXTIME=15)
MAXEPOCHS=AUTO

ERRORCHANGE=1.0E-4
ERRORRATIO=0.001
/MISSING
USERMISSING=EXCLUDE .
```

Resources	Processor Time	00:00:00.47
	Elapsed Time	00:00:00.42

Warnings

One or more cases in the testing or holdout sample have factor or dependent variable values that do not occur in the training sample. These cases are excluded from the analysis.

Case Processing Summary

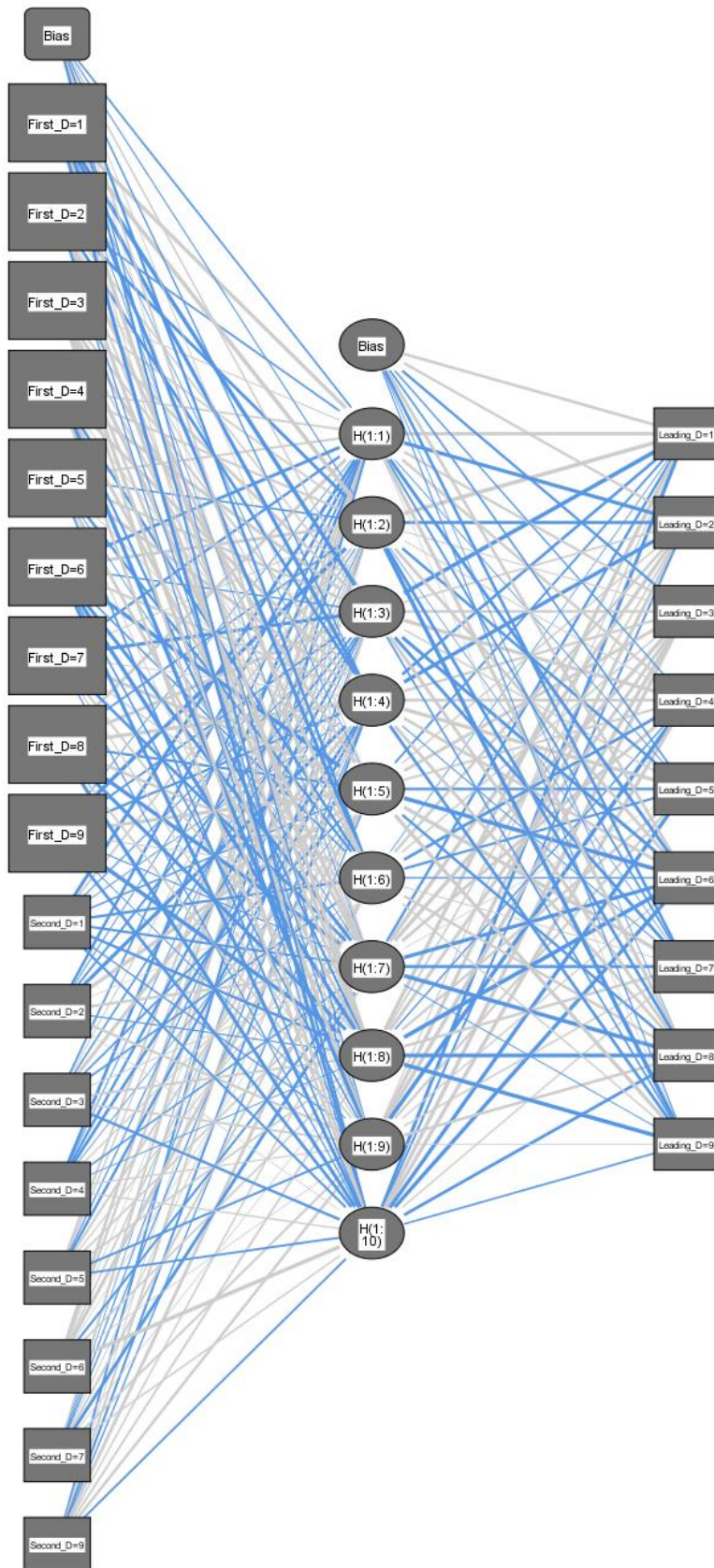
		N	Percent
Sample	Training	34	66.7%
	Testing	17	33.3%
Valid		51	100.0%
Excluded		53	
Total		104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		17
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		10
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
	Number of Units		9
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

Model Summary

Training	Cross Entropy Error	5.429
	Percent Incorrect Predictions	2.9%
	Stopping Rule Used	1 consecutive step(s) with no decrease in error ^a
	Training Time	0:00:00.02
Testing	Cross Entropy Error	4.108
	Percent Incorrect Predictions	11.8%

Dependent Variable: Leading discourse in meaning

a. Error computations are based on the testing sample.

Parameter Estimates

Predictor	Hidden Layer 1										Output Layer									
	H(1-1)	H(1-2)	H(1-3)	H(1-4)	H(1-5)	H(1-6)	H(1-7)	H(1-8)	H(1-9)	H(1-10)	Leading_D=1	Leading_D=2	Leading_D=3	Leading_D=4	Leading_D=5	Leading_D=6	Leading_D=7	Leading_D=8	Leading_D=9	
Input Layer (Bias)	-.299	-.112	.247	-.192	.047	-.493	.354	.011	-.176	-.395										
[First_D=1]	.910	1.376	-1.406	-.945	-.044	-.783	-.036	1.077	.103	-.722										
[First_D=2]	-.291	-.627	.254	-.585	.106	.701	.278	.784	-.161	-.165										
[First_D=3]	.106	.326	.570	.368	.704	.335	1.263	.579	.991	.525										
[First_D=4]	.322	.418	.699	.703	.063	-.497	.658	-.419	-1.133	.567										
[First_D=5]	.379	-.263	.514	.727	.054	-.456	-.047	.621	.070	-.293										
[First_D=6]	-.633	.669	-.220	.436	-1.434	-.233	-.724	-1.094	-.264	-.713										
[First_D=7]	-.458	.133	-.772	.075	.645	.188	-.652	.362	.160	-.148										
[First_D=8]	.637	-.303	.750	.800	-.429	.578	-1.172	-.791	.347	-.775										
[First_D=9]	-.055	-1.179	-.335	-.433	.756	.145	-.116	-1.289	-.058	-.586										
[Second_D=1]	-.697	.342	-.162	-.058	-.226	-.469	-.411	-.512	-.173	-.393										
[Second_D=2]	-.513	-.088	-.344	-.792	.770	.002	.504	-.146	.465	.029										
[Second_D=3]	-.308	.093	-.261	.704	-.323	-.326	.082	.414	.346	-.477										
[Second_D=4]	-.600	-.086	-.457	-.578	-.042	.171	-.266	-.051	.164	.191										
[Second_D=5]	.414	.222	-.164	-.481	.362	.170	.318	.322	-.363	-.339										
[Second_D=6]	.618	.442	.020	.306	.718	.018	-.368	.300	.030	1.196										
[Second_D=7]	.431	-.022	-.154	-.176	.078	.394	-.624	.022	.376	.242										
[Second_D=9]	-.391	.046	.406	-.394	-.177	.634	.229	.330	.504	-.338										
Hidden Layer 1 (Bias)											.563	.456	-.457	-.190	-.278	.581	-.530	-.032	-.137	

H(1-1)															.736	-.919	.443	.518	-.048	-.680	-.327	.852	.004
H(1-2)															1.255	-.585	.105	.101	-.507	.605	-.017	-.591	-1.718
H(1-3)															-1.740	.299	.477	.871	.224	-.671	-.633	.663	-.274
H(1-4)															-.537	-1.062	.450	.605	1.044	-.596	-.095	.618	-.586
H(1-5)															-.332	.197	.625	.373	-.439	-2.150	1.073	-.501	1.067
H(1-6)															-.039	.523	.260	-.580	-.423	-.214	.090	.501	.223
H(1-7)															-.463	.997	1.118	.668	.012	-.987	-.676	-1.671	-.073
H(1-8)															1.059	.287	.682	-.201	.475	-1.808	.512	-1.129	-1.324
H(1-9)															.171	.757	1.112	-1.245	.429	.180	.250	.545	.052
H(1-10)															-.737	-.359	1.062	.967	-1.027	-1.073	.204	-.586	-.284

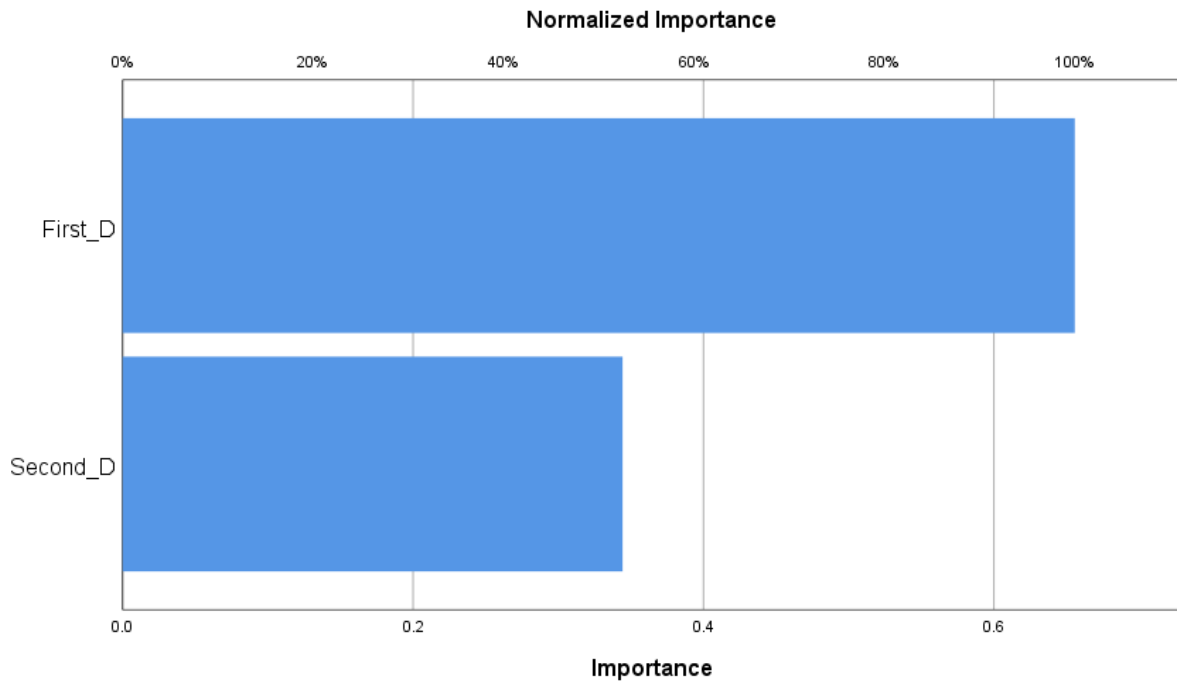
Classification

Sample	Observed	Predicted									Percent Correct	
		1	2	3	4	5	6	7	8	9		
Training	1	10	0	0	0	0	0	0	0	0	0	100.0%
	2	0	2	0	0	0	0	0	0	0	0	100.0%
	3	0	0	2	0	0	0	0	0	0	0	100.0%
	4	0	0	0	2	0	0	0	0	0	0	100.0%
	5	0	0	0	0	1	0	0	0	0	0	100.0%
	6	0	0	0	0	0	9	0	0	0	0	100.0%
	7	1	0	0	0	0	0	0	0	0	0	0.0%
	8	0	0	0	0	0	0	0	3	0	0	100.0%
	9	0	0	0	0	0	0	0	0	4	0	100.0%
	Overall		32.4%	5.9%	5.9%	5.9%	2.9%	26.5%	0.0%	8.8%	11.8%	97.1%
Percent												
Testing	1	7	0	0	0	0	0	0	0	0	0	100.0%
	2	0	1	0	0	0	0	0	0	1	0	50.0%
	3	0	1	2	0	0	0	0	0	0	0	66.7%
	4	0	0	0	2	0	0	0	0	0	0	100.0%
	5	0	0	0	0	0	0	0	0	0	0	0.0%
	6	0	0	0	0	0	2	0	0	0	0	100.0%
	7	0	0	0	0	0	0	0	0	0	0	0.0%
	8	0	0	0	0	0	0	0	0	0	0	0.0%
	9	0	0	0	0	0	0	0	0	1	0	100.0%
	Overall		41.2%	11.8%	11.8%	11.8%	0.0%	11.8%	0.0%	0.0%	11.8%	88.2%
Percent												

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.656	100.0%
Second discourse in text	.344	52.5%



```
*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
/PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
/ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
/CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.0000005
SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
/PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
/PLOT NETWORK
/STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
/MISSING USERMISSING=EXCLUDE .
```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:21:37
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Science\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
	Missing Value Handling	Definition of Missing
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax

```
MLP Leading_D
(MLEVEL=N) BY First_D
Second_D
/PARTITION
TRAINING=7 TESTING=3
HOLDOUT=0
/ARCHITECTURE
AUTOMATIC=YES
(MINUNITS=1
MAXUNITS=50)
/CRITERIA
TRAINING=BATCH
OPTIMIZATION=SCALEDG
ONJUGATE
LAMBDAINITIAL=0.0000005
SIGMAINITIAL=0.00005
INTERVALCENTER=0
INTERVALOFFSET=0.5
MEMSIZE=1000
/PRINT CPS
NETWORKINFO SUMMARY
CLASSIFICATION
SOLUTION IMPORTANCE
/PLOT NETWORK
/STOPPINGRULES
ERRORSTEPS= 1
(DATA=AUTO)
TRAININGTIMER=ON
(MAXTIME=15)
MAXEPOCHS=AUTO

ERRORCHANGE=1.0E-4
ERRORRATIO=0.001
/MISSING
USERMISSING=EXCLUDE .
```

Resources	Processor Time	00:00:00.48
	Elapsed Time	00:00:00.47

Warnings

One or more cases in the testing or holdout sample have factor or dependent variable values that do not occur in the training sample. These cases are excluded from the analysis.

Case Processing Summary

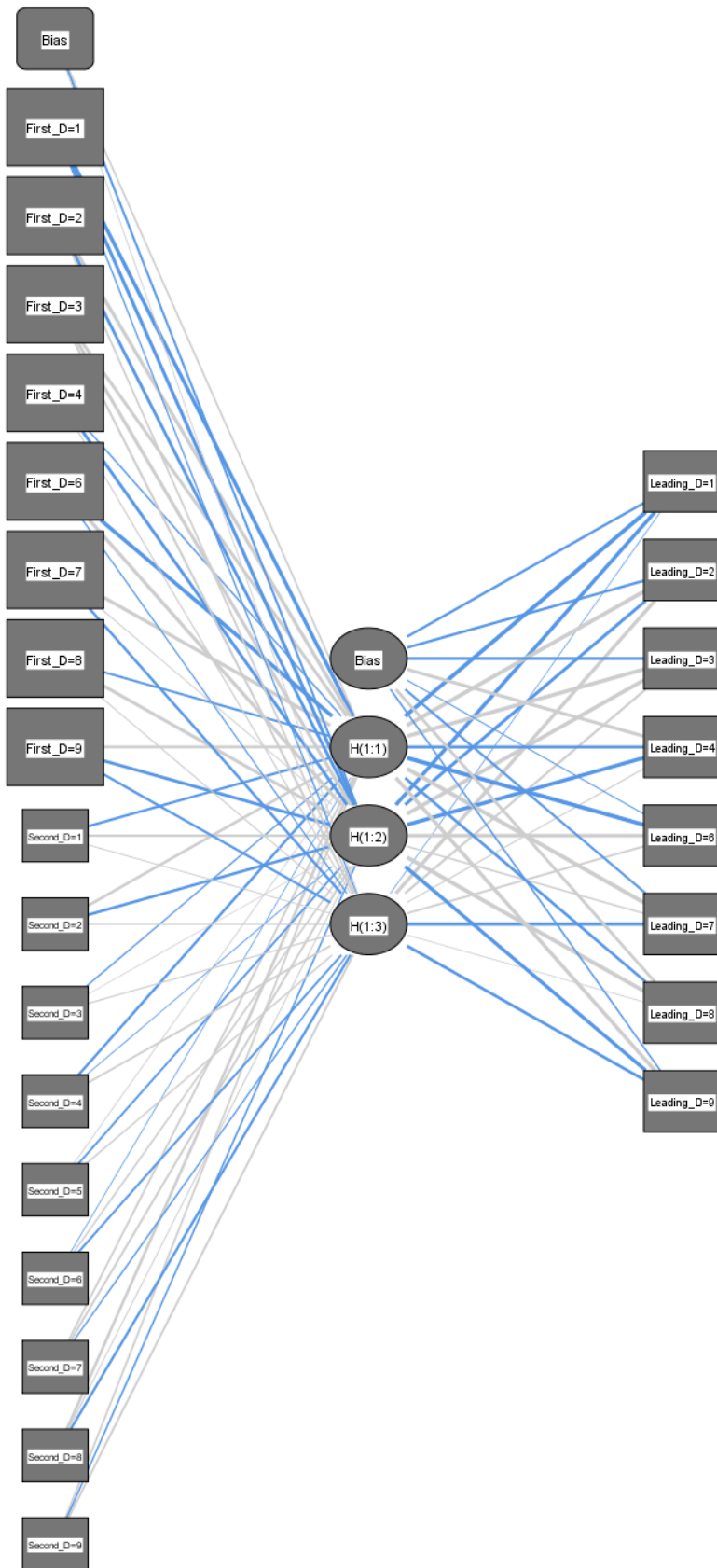
		N	Percent
Sample	Training	40	78.4%
	Testing	11	21.6%
Valid		51	100.0%
Excluded		53	
Total		104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		17
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		3
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
	Number of Units		8
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

	[Second_D=6	-.010	.467	-.539								
]											
	[Second_D=7	.490	.527	-.402								
]											
	[Second_D=8	1.140	.189	-.674								
]											
	[Second_D=9	.480	-.467	.518								
]											
Hidden Layer	(Bias)				-.707	-.814	-1.226	1.907	-.241	-.599	1.529	-.458
1	H(1:1)				-7.491	4.992	4.521	-1.390	-7.924	5.034	-1.162	3.494
	H(1:2)				-3.533	-1.740	4.170	-3.682	3.056	.432	4.584	-3.040
	H(1:3)				-.003	2.980	.598	.270	.493	-2.159	.037	-1.379

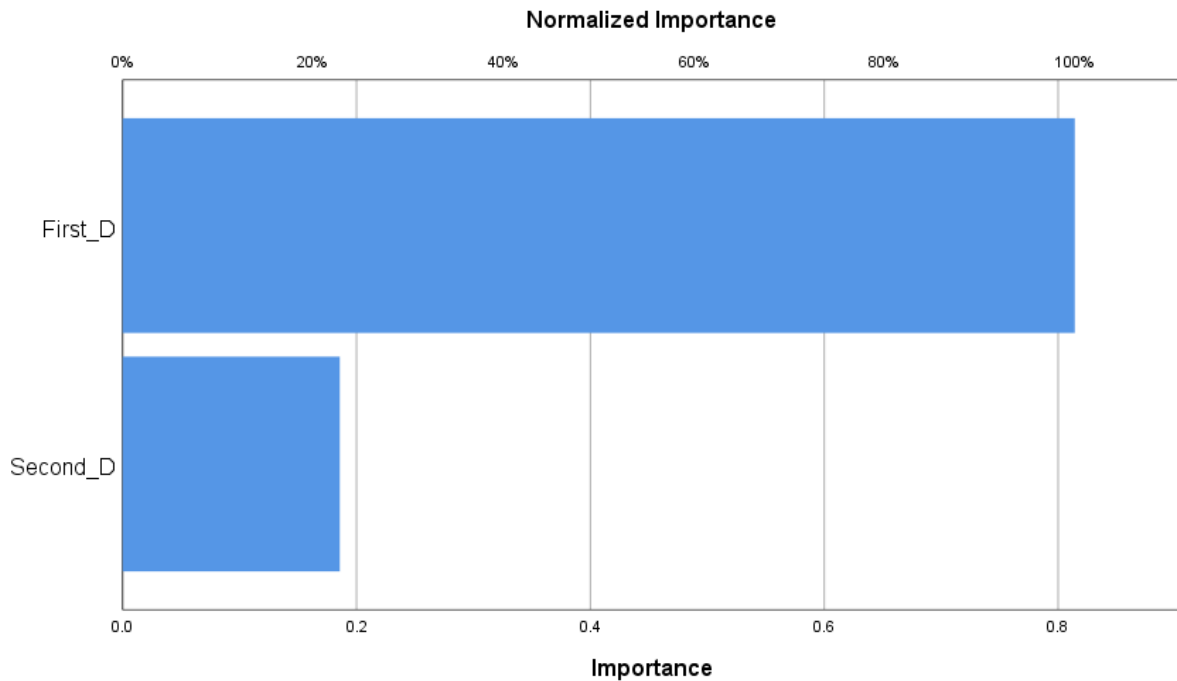
Classification

Sample	Observed	Predicted								Percent Correct
		1	2	3	4	6	7	8	9	
Training	1	12	0	0	0	0	0	0	0	100.0%
	2	0	3	0	0	0	0	0	0	100.0%
	3	0	1	3	0	0	0	0	0	75.0%
	4	0	0	0	3	0	0	0	0	100.0%
	6	0	0	0	0	10	0	0	0	100.0%
	7	0	0	0	0	0	2	0	0	100.0%
	8	0	0	0	0	0	0	3	0	100.0%
	9	0	0	0	0	0	0	0	3	100.0%
	Overall	Percent	30.0%	10.0%	7.5%	7.5%	25.0%	5.0%	7.5%	7.5%
Testing	1	5	0	0	0	0	0	0	0	100.0%
	2	0	0	0	0	0	0	0	1	0.0%
	3	0	0	1	0	0	0	0	0	100.0%
	4	0	0	0	1	0	0	0	0	100.0%
	6	0	0	0	0	1	0	0	0	100.0%
	7	0	0	0	0	0	0	0	0	0.0%
	8	0	0	0	0	0	0	0	0	0.0%
	9	0	0	0	0	0	0	0	2	100.0%
	Overall	Percent	45.5%	0.0%	9.1%	9.1%	9.1%	0.0%	0.0%	27.3%

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.814	100.0%
Second discourse in text	.186	22.8%



```

*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.0000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
  /PLOT NETWORK
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
  /MISSING USERMISSING=EXCLUDE .
  
```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:21:45
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Science\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
	Missing Value Handling	Definition of Missing
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax	<pre> MLP Leading_D (MLEVEL=N) BY First_D Second_D /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0 /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50) /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDG ONJUGATE LAMBDAINITIAL=0.0000005 SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000 /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE /PLOT NETWORK /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15) MAXEPOCHS=AUTO ERRORCHANGE=1.0E-4 ERRORRATIO=0.001 /MISSING USERMISSING=EXCLUDE . </pre>	
Resources	Processor Time	00:00:00.45
	Elapsed Time	00:00:00.45

Warnings

One or more cases in the testing or holdout sample have factor or dependent variable values that do not occur in the training sample. These cases are excluded from the analysis.

Case Processing Summary

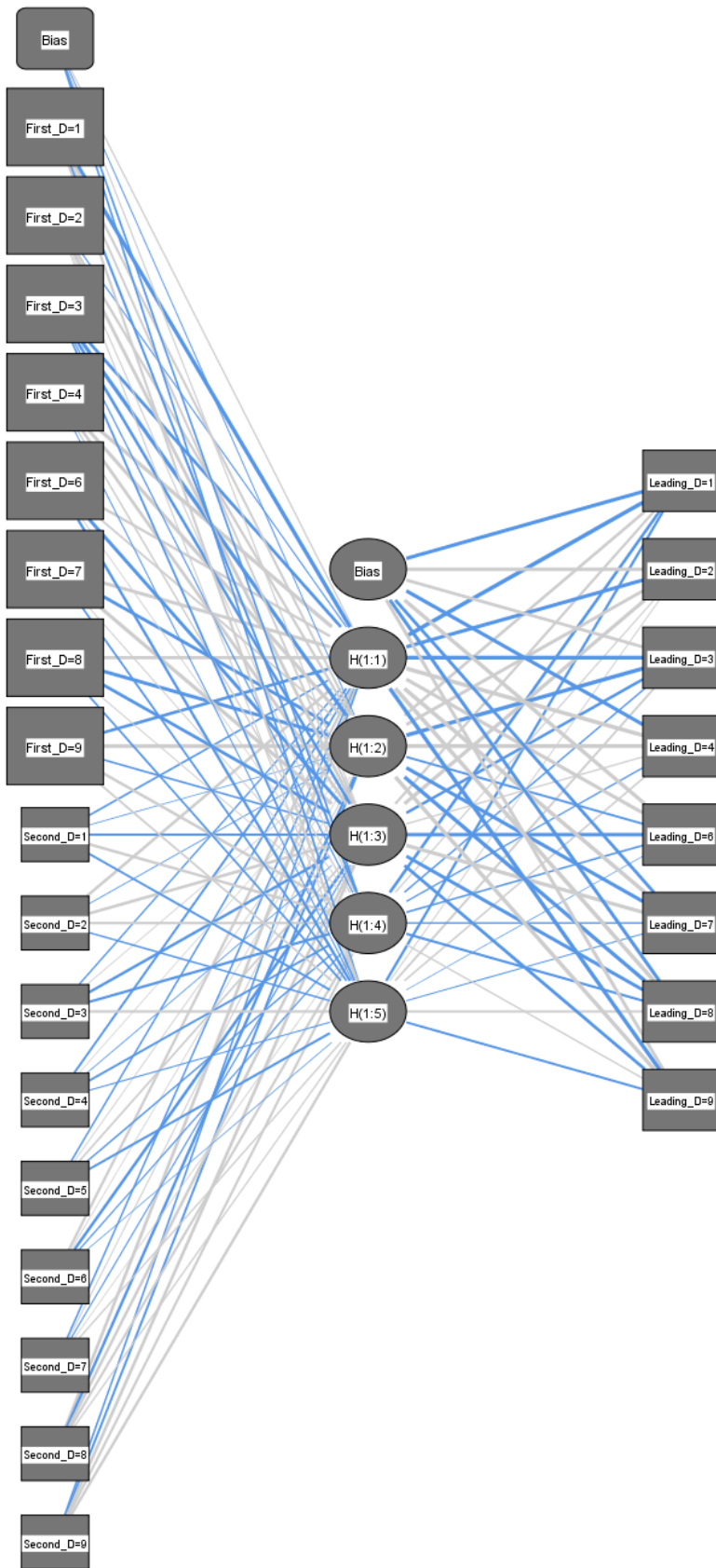
		N	Percent
Sample	Training	35	68.6%
	Testing	16	31.4%
Valid		51	100.0%
Excluded		53	
Total		104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		17
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		5
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
	Number of Units		8
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

[Second_D =6]	.427	.022	-.705	-.157	-.022								
[Second_D =7]	-.205	.080	-.126	.046	.173								
[Second_D =8]	.902	-.564	.573	.334	.161								
[Second_D =9]	-.210	-.278	.865	.337	.472								
Hidden (Bias)						-2.838	2.132	1.114	-2.710	3.666	-1.427	-2.111	1.596
Layer 1 H(1:1)						-14.938	-3.019	-5.265	9.168	2.262	7.775	7.779	-4.234
H(1:2)						.699	1.428	-4.595	4.600	-.271	-2.643	-3.715	4.182
H(1:3)						.399	3.056	-.576	.161	-2.465	3.069	-2.049	-1.240
H(1:4)						-.800	.122	-.187	-.167	-.215	-.184	-.363	.174
H(1:5)						-.455	.067	-.251	.191	-.014	-.087	.331	-.290

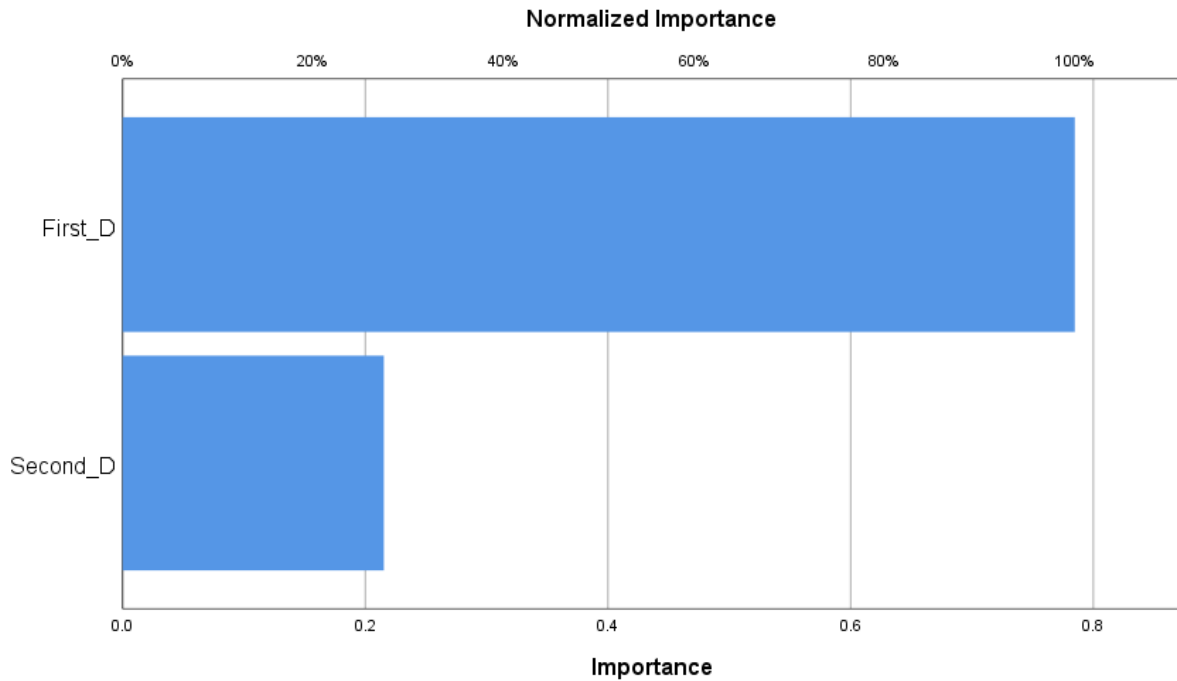
Classification

Sample	Observed	Predicted								Percent Correct	
		1	2	3	4	6	7	8	9		
Training	1	11	0	0	0	0	0	0	0	0	100.0%
	2	0	1	0	0	0	0	0	0	1	50.0%
	3	0	0	3	0	0	0	0	0	0	100.0%
	4	0	0	0	4	0	0	0	0	0	100.0%
	6	0	0	0	0	8	0	0	0	0	100.0%
	7	0	0	0	0	0	2	0	0	0	100.0%
	8	0	0	0	0	0	0	2	0	0	100.0%
	9	0	0	0	0	0	0	0	0	3	100.0%
	Overall Percent		31.4%	2.9%	8.6%	11.4%	22.9%	5.7%	5.7%	11.4%	
Testing	1	6	0	0	0	0	0	0	0	0	100.0%
	2	0	1	1	0	0	0	0	0	0	50.0%
	3	0	0	2	0	0	0	0	0	0	100.0%
	4	0	0	0	0	0	0	0	0	0	0.0%
	6	0	0	0	0	3	0	0	0	0	100.0%
	7	0	0	0	0	0	0	0	0	0	0.0%
	8	0	0	0	0	0	0	1	0	0	100.0%
	9	0	0	0	0	0	0	0	0	2	100.0%
	Overall Percent		37.5%	6.3%	18.8%	0.0%	18.8%	0.0%	6.3%	12.5%	

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.785	100.0%
Second discourse in text	.215	27.4%



```

*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
  /PLOT NETWORK
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
  /MISSING USERMISSING=EXCLUDE .
  
```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:21:53
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Sience\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
Missing Value Handling	Definition of Missing	User- and system-missing values are treated as missing.
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax	<pre> MLP Leading_D (MLEVEL=N) BY First_D Second_D /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0 /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50) /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDG ONJUGATE LAMBDAINITIAL=0.0000005 SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000 /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE /PLOT NETWORK /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15) MAXEPOCHS=AUTO ERRORCHANGE=1.0E-4 ERRORRATIO=0.001 /MISSING USERMISSING=EXCLUDE . </pre>	
Resources	Processor Time	00:00:00.47
	Elapsed Time	00:00:00.47

Warnings

One or more cases in the testing or holdout sample have factor or dependent variable values that do not occur in the training sample. These cases are excluded from the analysis.

Case Processing Summary

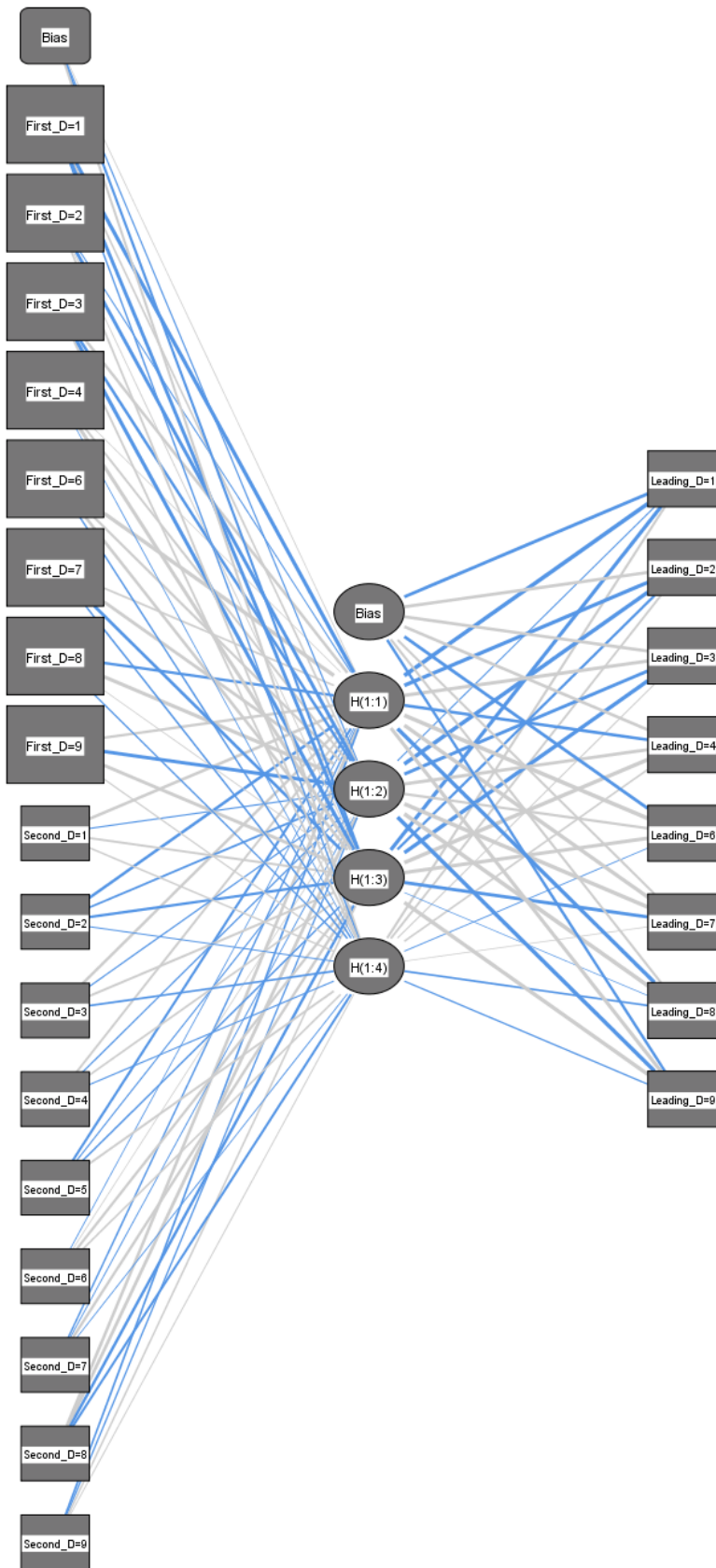
		N	Percent
Sample	Training	34	66.7%
	Testing	17	33.3%
Valid		51	100.0%
Excluded		53	
Total		104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		17
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		4
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
	Number of Units		8
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

	[Second_D=6]	-.049	.017	.557	.241								
	[Second_D=7]	-.202	-.068	.647	-.059								
	[Second_D=8]	1.117	1.514	-.741	-.445								
	[Second_D=9]	-.318	-.164	.208	.085								
Hidden Layer 1	(Bias)					-2.124	1.435	1.318	1.192	-2.050	.410	.431	-.722
	H(1:1)					-12.848	-4.061	2.721	-1.200	12.223	4.338	-5.411	3.006
	H(1:2)					-.126	-7.099	-2.328	2.101	.510	6.740	8.022	-6.937
	H(1:3)					-3.673	-.553	-5.558	5.861	2.861	-2.371	-.001	4.963
	H(1:4)					.460	.357	.093	.249	-.052	.021	-.322	-.163

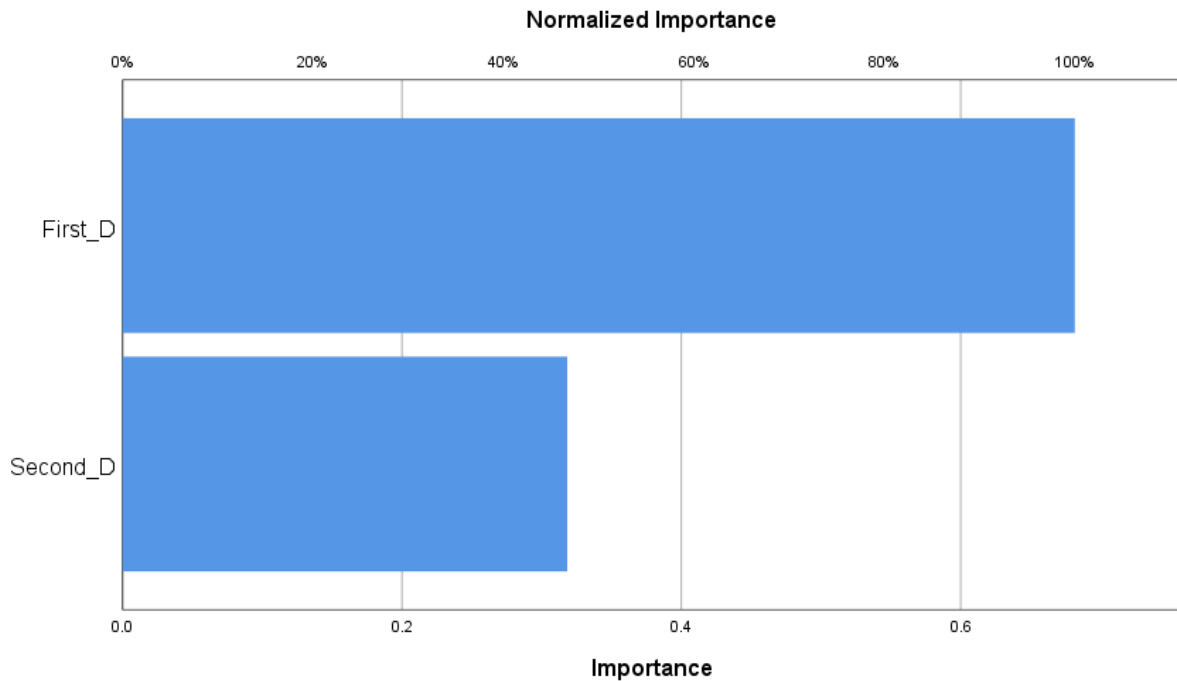
Classification

Sample	Observed	Predicted									Percent Correct
		1	2	3	4	6	7	8	9		
Training	1	10	0	0	0	0	0	0	0	0	100.0%
	2	0	3	1	0	0	0	0	0	0	75.0%
	3	0	0	3	0	0	0	0	0	0	100.0%
	4	0	0	0	1	0	0	0	0	0	100.0%
	6	0	0	0	0	10	0	0	0	0	100.0%
	7	0	0	0	0	0	1	0	0	0	100.0%
	8	0	0	0	0	0	0	0	2	0	100.0%
	9	0	1	0	0	0	0	0	0	2	66.7%
	Overall Percent		29.4%	11.8%	11.8%	2.9%	29.4%	2.9%	5.9%	5.9%	94.1%
Testing	1	7	0	0	0	0	0	0	0	0	100.0%
	2	0	0	0	0	0	0	0	0	0	0.0%
	3	0	0	2	0	0	0	0	0	0	100.0%
	4	0	0	0	3	0	0	0	0	0	100.0%
	6	0	0	0	0	1	0	0	0	0	100.0%
	7	0	0	0	0	0	1	0	0	0	100.0%
	8	0	0	0	0	0	0	1	0	0	100.0%
	9	0	0	0	0	0	0	0	0	2	100.0%
	Overall Percent		41.2%	0.0%	11.8%	17.6%	5.9%	5.9%	5.9%	11.8%	100.0%

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.682	100.0%
Second discourse in text	.318	46.7%



```
*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.0000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
  /PLOT NETWORK
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
  /MISSING USERMISSING=EXCLUDE .
```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:22:01
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Science\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
	Missing Value Handling	Definition of Missing
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax	MLP Leading_D (MLEVEL=N) BY First_D Second_D /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0 /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50) /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALED ONJUGATE LAMBDAINITIAL=0.0000005 SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000 /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE /PLOT NETWORK /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15) MAXEPOCHS=AUTO ERRORCHANGE=1.0E-4 ERRORRATIO=0.001 /MISSING USERMISSING=EXCLUDE .	
Resources	Processor Time	00:00:00.42
	Elapsed Time	00:00:00.47

Case Processing Summary

		N	Percent
Sample	Training	33	63.5%

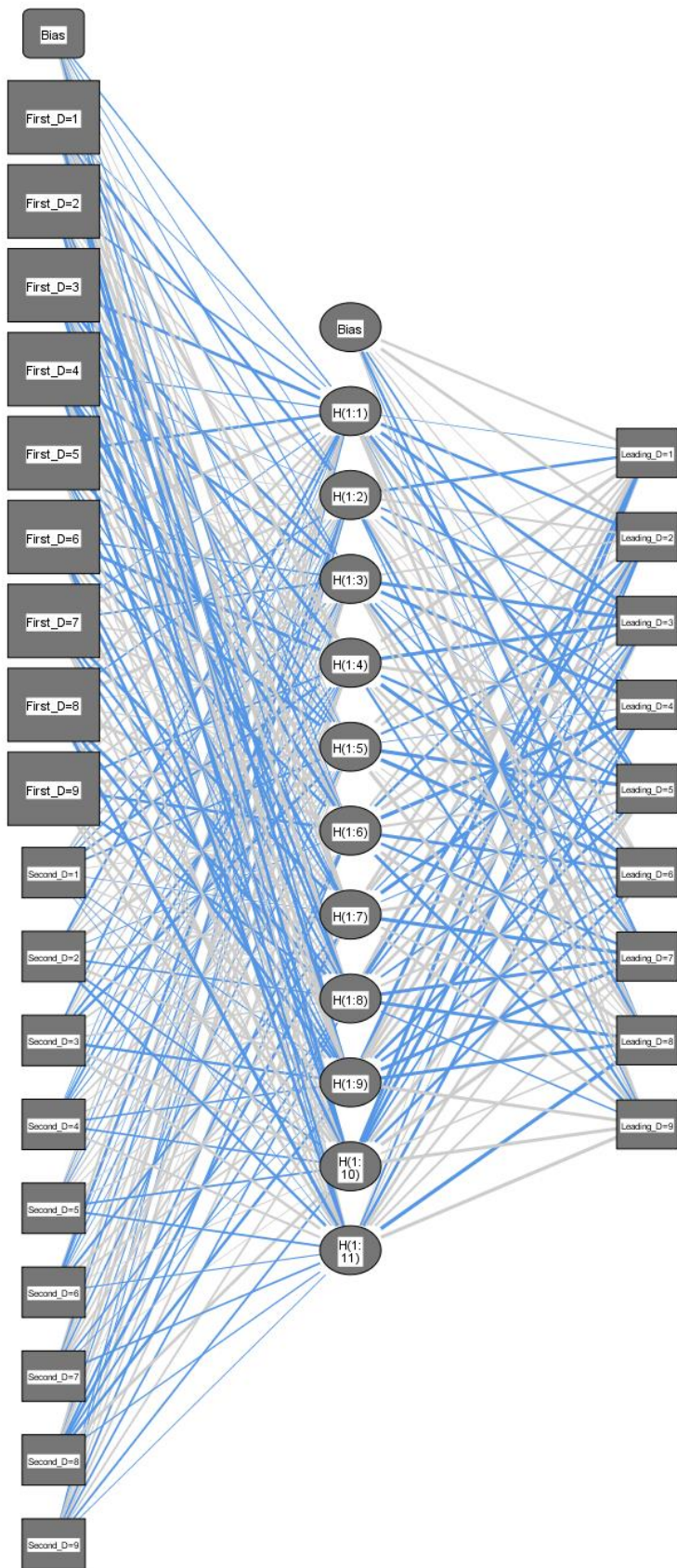
Testing	19	36.5%
Valid	52	100.0%
Excluded	52	
Total	104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		18
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		11
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
		Number of Units	
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



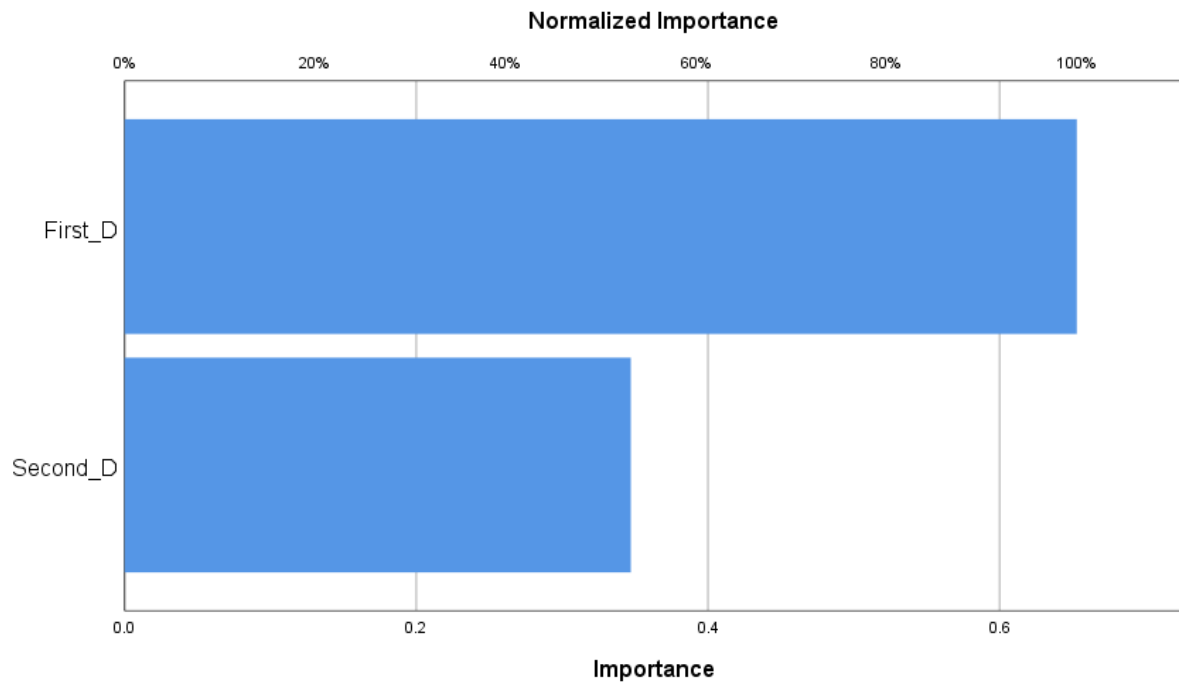
Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

3	0	0	2	0	0	0	0	0	0	100.0%
4	0	0	0	1	0	0	0	0	0	100.0%
5	0	0	0	0	0	0	0	0	0	0.0%
6	0	0	0	0	0	5	0	0	0	100.0%
7	0	0	0	0	0	0	1	0	0	100.0%
8	0	0	0	0	0	0	0	0	0	0.0%
9	0	0	0	0	0	0	0	0	2	100.0%
Overall	42.1%	0.0%	10.5%	5.3%	0.0%	26.3%	5.3%	0.0%	10.5%	100.0%
Percent										

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.653	100.0%
Second discourse in text	.347	53.2%



```

*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000

```

```

/PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
/PLOT NETWORK
/STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
/MISSING USERMISSING=EXCLUDE .

```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:22:08
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Siencie\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
Missing Value Handling	Definition of Missing	User- and system-missing values are treated as missing.
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax

```
MLP Leading_D
(MLEVEL=N) BY First_D
Second_D
/PARTITION
TRAINING=7 TESTING=3
HOLDOUT=0
/ARCHITECTURE
AUTOMATIC=YES
(MINUNITS=1
MAXUNITS=50)
/CRITERIA
TRAINING=BATCH
OPTIMIZATION=SCALEDG
ONJUGATE
LAMBDAINITIAL=0.0000005
SIGMAINITIAL=0.00005
INTERVALCENTER=0
INTERVALOFFSET=0.5
MEMSIZE=1000
/PRINT CPS
NETWORKINFO SUMMARY
CLASSIFICATION
SOLUTION IMPORTANCE
/PLOT NETWORK
/STOPPINGRULES
ERRORSTEPS= 1
(DATA=AUTO)
TRAININGTIMER=ON
(MAXTIME=15)
MAXEPOCHS=AUTO

ERRORCHANGE=1.0E-4
ERRORRATIO=0.001
/MISSING
USERMISSING=EXCLUDE .
```

Resources	Processor Time	00:00:00.44
	Elapsed Time	00:00:00.45

Warnings

One or more cases in the testing or holdout sample have factor or dependent variable values that do not occur in the training sample. These cases are excluded from the analysis.

Case Processing Summary

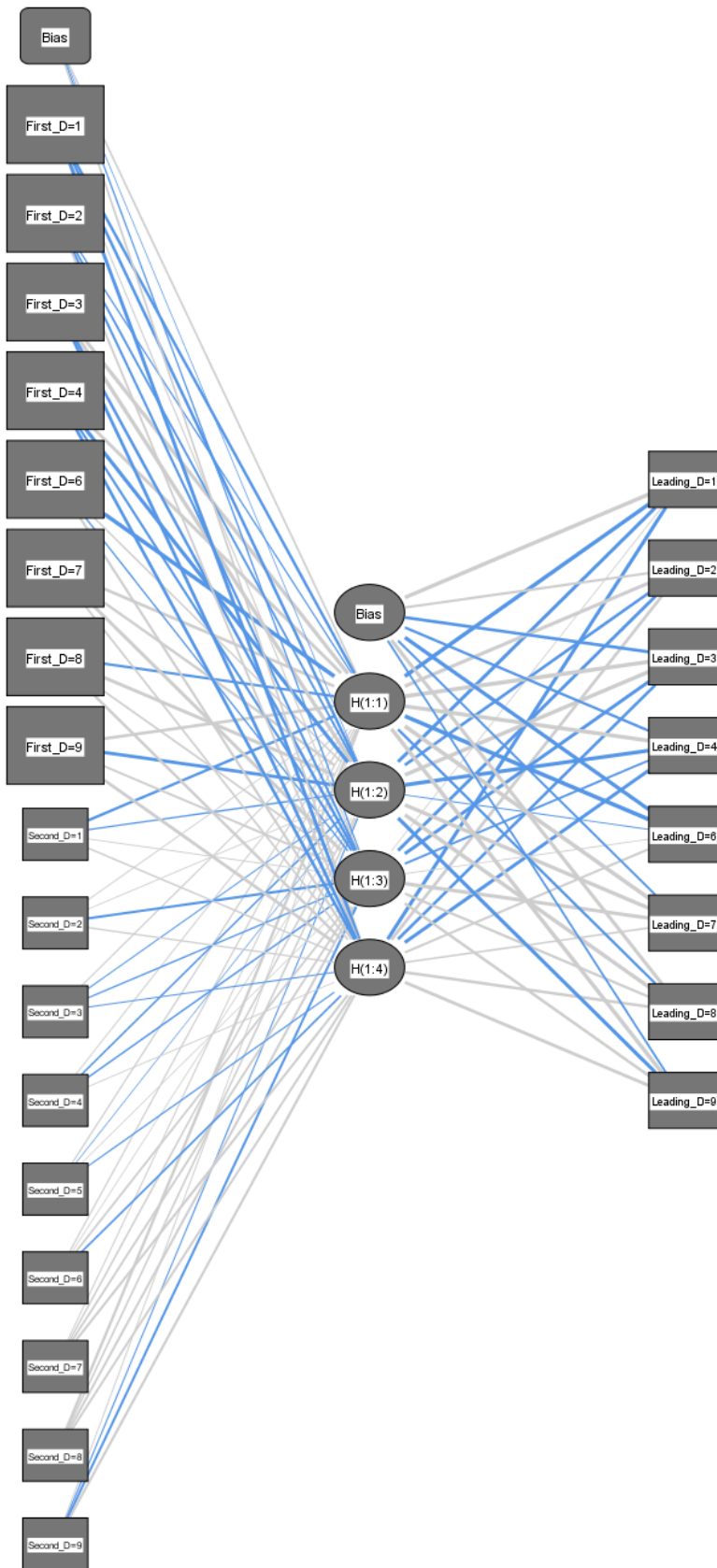
		N	Percent
Sample	Training	39	76.5%
	Testing	12	23.5%
Valid		51	100.0%
Excluded		53	
Total		104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		17
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		4
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
	Number of Units		8
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

	[Second_D=6]	.188	.033	.450	-.443								
	[Second_D=7]	.167	.371	.512	.666								
	[Second_D=8]	.958	.395	.600	.575								
	[Second_D=9]	.128	-.178	-.679	.757								
Hidden Layer	(Bias)					2.865	.791	-1.318	-.946	-2.197	-.644	1.859	-.522
1	H(1:1)					-3.852	1.823	4.398	3.764	-12.513	3.936	-.933	3.611
	H(1:2)					-1.821	-1.202	2.584	-2.302	-.149	2.180	2.309	-2.006
	H(1:3)					.035	-1.541	-1.746	-.556	.082	1.962	.836	1.058
	H(1:4)					-1.921	1.237	-1.199	-1.807	.658	.407	1.164	1.340

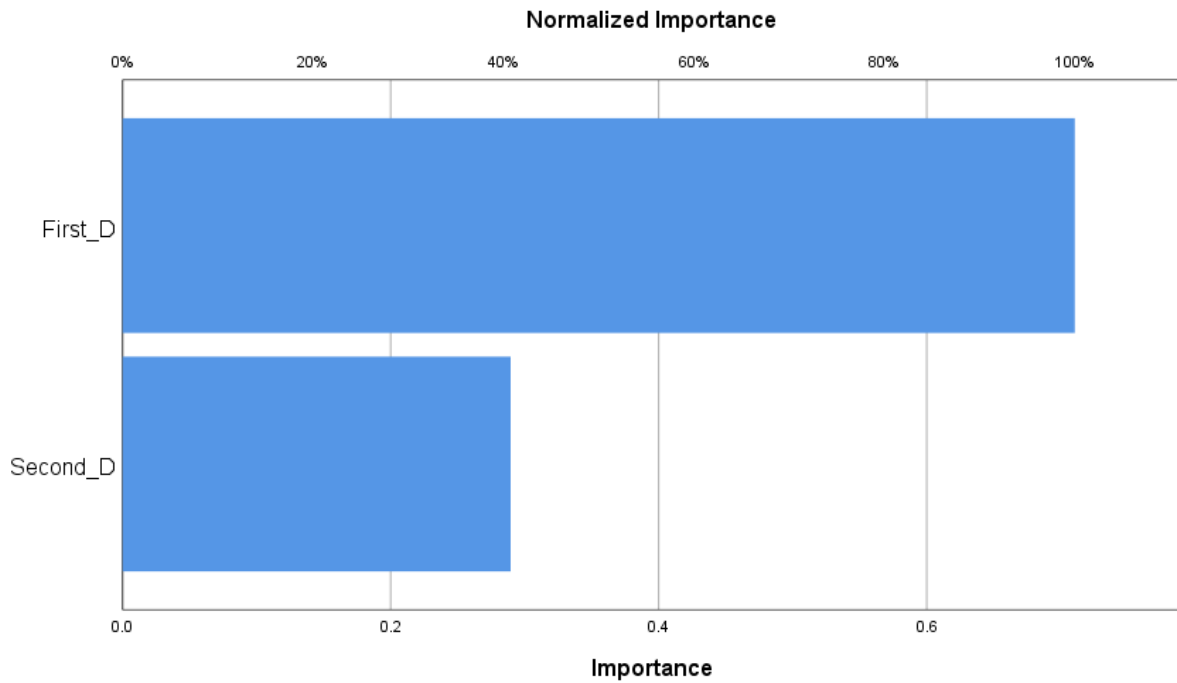
Classification

Sample	Observed	Predicted									Percent Correct
		1	2	3	4	6	7	8	9		
Training	1	11	0	0	0	0	0	0	0	0	100.0%
	2	0	1	0	0	0	0	0	0	1	50.0%
	3	0	0	4	0	0	0	0	0	0	100.0%
	4	0	0	0	3	0	0	0	0	0	100.0%
	6	0	0	0	0	10	0	0	0	0	100.0%
	7	0	0	0	0	0	2	0	0	0	100.0%
	8	0	0	0	0	0	0	0	3	0	100.0%
	9	0	0	0	0	0	0	0	0	4	100.0%
	Overall	Percent	28.2%	2.6%	10.3%	7.7%	25.6%	5.1%	7.7%	12.8%	97.4%
Testing	1	6	0	0	0	0	0	0	0	0	100.0%
	2	0	1	1	0	0	0	0	0	0	50.0%
	3	0	0	1	0	0	0	0	0	0	100.0%
	4	0	0	0	1	0	0	0	0	0	100.0%
	6	0	0	0	0	1	0	0	0	0	100.0%
	7	0	0	0	0	0	0	0	0	0	0.0%
	8	0	0	0	0	0	0	0	0	0	0.0%
	9	0	0	0	0	0	0	0	0	1	100.0%
	Overall	Percent	50.0%	8.3%	16.7%	8.3%	8.3%	0.0%	0.0%	8.3%	91.7%

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.710	100.0%
Second discourse in text	.290	40.8%



```
*Multilayer Perceptron Network.  
MLP Leading_D (MLEVEL=N) BY First_D Second_D  
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0  
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)  
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE  
LAMBDAINITIAL=0.0000005  
  SIGMAINITIAL=0.000005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000  
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE  
  /PLOT NETWORK  
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)  
MAXEPOCHS=AUTO  
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001  
  /MISSING USERMISSING=EXCLUDE .
```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:22:18
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Science\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
	Missing Value Handling	Definition of Missing
Cases Used		Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax	MLP Leading_D (MLEVEL=N) BY First_D Second_D /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0 /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50) /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALED ONJUGATE LAMBDAINITIAL=0.0000005 SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000 /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE /PLOT NETWORK /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15) MAXEPOCHS=AUTO ERRORCHANGE=1.0E-4 ERRORRATIO=0.001 /MISSING USERMISSING=EXCLUDE .	
Resources	Processor Time	00:00:00.45
	Elapsed Time	00:00:00.43

Warnings

One or more cases in the testing or holdout sample have factor or dependent variable values that do not occur in the training sample. These cases are excluded from the analysis.

Case Processing Summary

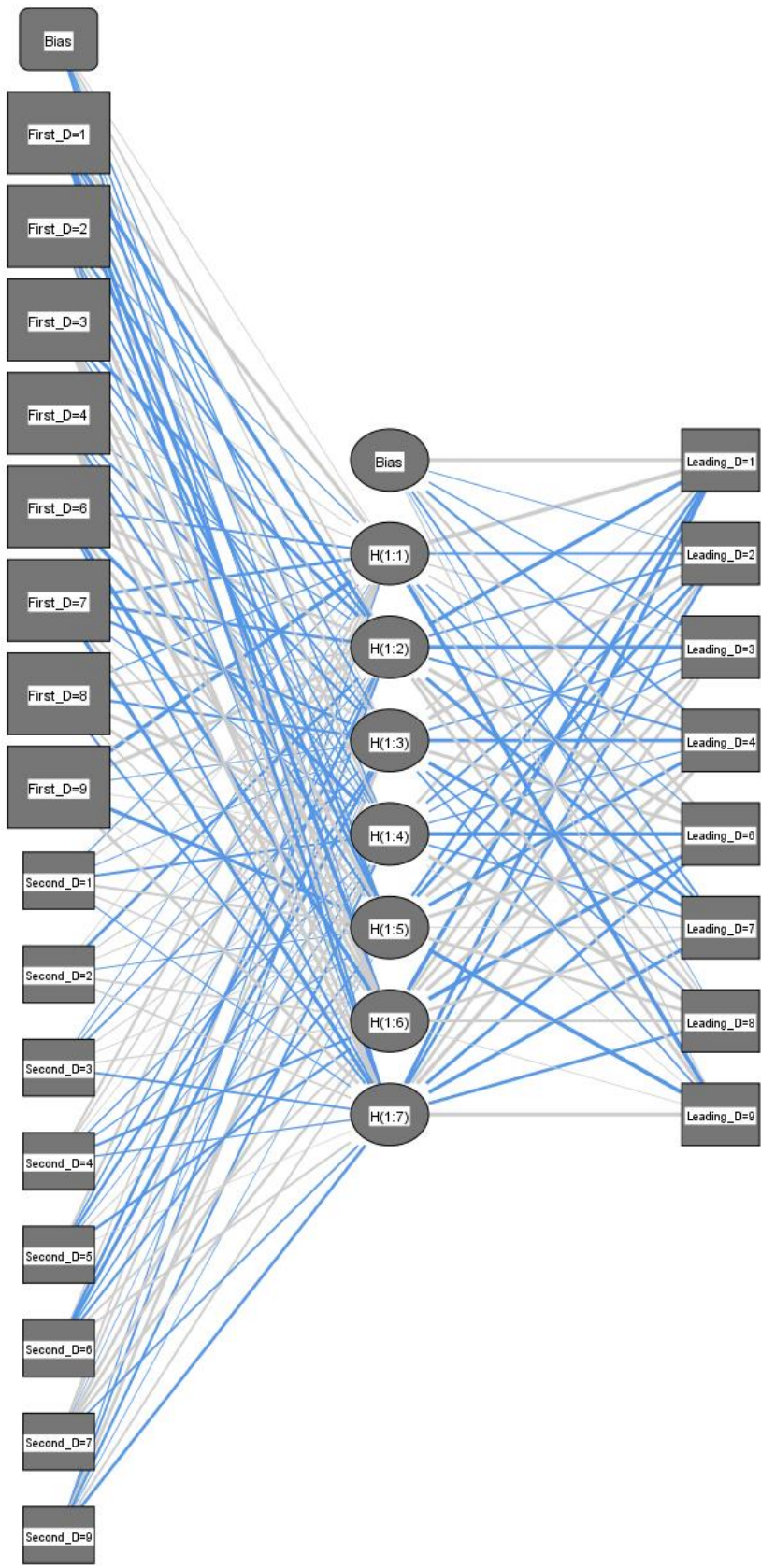
		N	Percent
Sample	Training	31	62.0%
	Testing	19	38.0%
Valid		50	100.0%
Excluded		54	
Total		104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		16
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		7
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
	Number of Units		8
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

	[Second_D=6	.227	-.623	-.895	-.228	-.428	.367	.423										
]																	
	[Second_D=7	.346	.401	-.003	.711	.707	.562	-.289										
]																	
	[Second_D=9	-.144	-.389	.759	-.446	-.048	.343	-.589										
]																	
Hidden Layer	(Bias)								.968	-.072	-.200	-.447	.615	-.370	-.051	.165		
1	H(1:1)								2.056	-.389	.212	.161	-.085	-.432	.288	-2.190		
	H(1:2)								-1.331	-.394	-1.309	-.439	1.395	-.967	1.018	.912		
	H(1:3)								.292	1.369	-.260	-.891	.907	-.998	-.307	-.274		
	H(1:4)								.588	-.430	-.190	-.177	-1.235	-.273	1.881	.051		
	H(1:5)								-.583	-.926	1.525	-.958	.879	.075	.881	-1.445		
	H(1:6)								-2.255	.816	.821	1.069	-1.876	.597	.462	.042		
	H(1:7)								-1.031	-.669	.778	1.574	-.858	-.966	-.695	1.099		

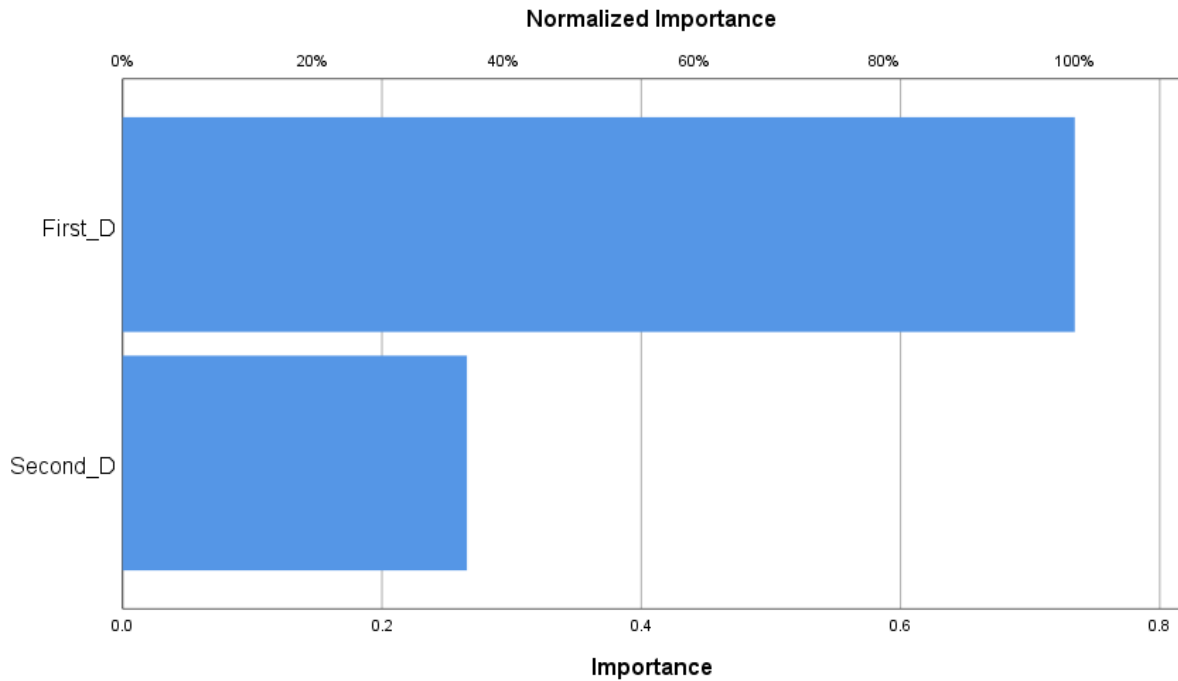
Classification

Sample	Observed	Predicted								Percent Correct
		1	2	3	4	6	7	8	9	
Training	1	13	0	0	0	0	0	0	0	100.0%
	2	0	1	0	0	0	0	0	0	100.0%
	3	0	0	3	0	0	0	0	0	100.0%
	4	0	0	0	1	0	0	0	0	100.0%
	6	0	0	0	0	8	0	0	0	100.0%
	7	0	0	0	0	0	1	0	0	100.0%
	8	0	0	0	0	0	0	1	0	100.0%
	9	0	0	0	0	0	0	0	3	100.0%
	Overall Percent		41.9%	3.2%	9.7%	3.2%	25.8%	3.2%	3.2%	9.7%
Testing	1	4	0	0	0	0	0	0	0	100.0%
	2	0	1	1	0	0	0	0	1	33.3%
	3	0	0	2	0	0	0	0	0	100.0%
	4	0	0	0	3	0	0	0	0	100.0%
	6	0	0	0	0	3	0	0	0	100.0%
	7	0	0	0	0	0	0	0	0	0.0%
	8	0	0	0	0	0	0	2	0	100.0%
	9	0	0	0	0	0	0	0	2	100.0%
	Overall Percent		21.1%	5.3%	15.8%	15.8%	15.8%	0.0%	10.5%	15.8%

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.734	100.0%
Second discourse in text	.266	36.2%



```

*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
  /PLOT NETWORK
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
  /MISSING USERMISSING=EXCLUDE .
  
```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:22:25
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\!MyDocs\!Sience\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
Missing Value Handling	Definition of Missing	User- and system-missing values are treated as missing.
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax	<pre> MLP Leading_D (MLEVEL=N) BY First_D Second_D /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0 /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50) /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDG ONJUGATE LAMBDAINITIAL=0.0000005 SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000 /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE /PLOT NETWORK /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15) MAXEPOCHS=AUTO ERRORCHANGE=1.0E-4 ERRORRATIO=0.001 /MISSING USERMISSING=EXCLUDE . </pre>	
Resources	Processor Time	00:00:00.45
	Elapsed Time	00:00:00.47

Warnings

One or more cases in the testing or holdout sample have factor or dependent variable values that do not occur in the training sample. These cases are excluded from the analysis.

Case Processing Summary

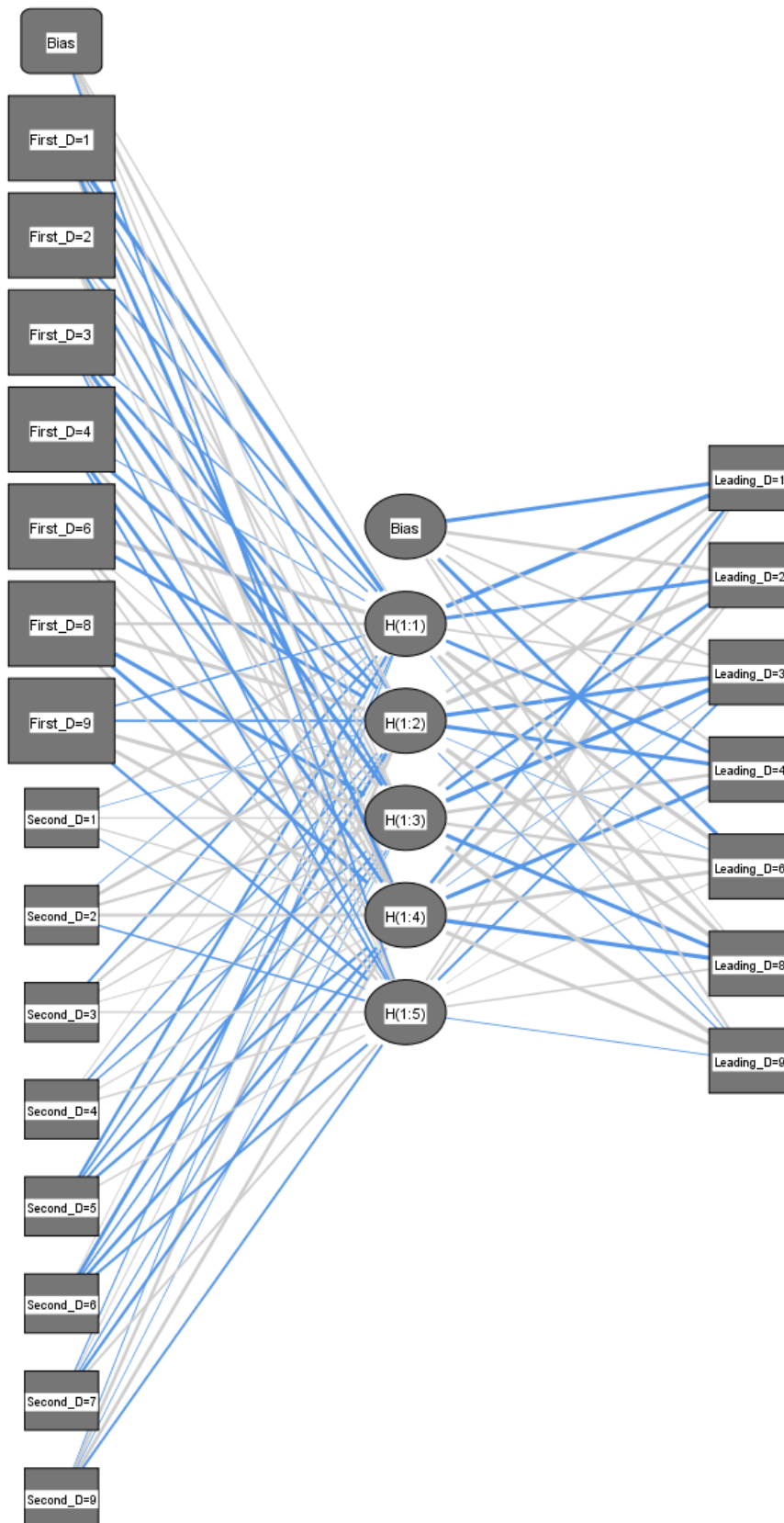
		N	Percent
Sample	Training	32	65.3%
	Testing	17	34.7%
Valid		49	100.0%
Excluded		55	
Total		104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		15
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		5
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
	Number of Units		7
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

Model Summary

Training	Cross Entropy Error	1.696
	Percent Incorrect Predictions	3.1%
	Stopping Rule Used	1 consecutive step(s) with no decrease in error ^a
	Training Time	0:00:00.02
Testing	Cross Entropy Error	4.477
	Percent Incorrect Predictions	5.9%

Dependent Variable: Leading discourse in meaning

a. Error computations are based on the testing sample.

Parameter Estimates

Predictor	Hidden Layer 1					Predicted						
	H(1:1)	H(1:2)	H(1:3)	H(1:4)	H(1:5)	[Leading_D=1]	[Leading_D=2]	[Leading_D=3]	[Leading_D=4]	[Leading_D=6]	[Leading_D=8]	[Leading_D=9]
Input Layer												
[Bias]	.176	.953	.117	.316	-.317							
[First_D=1]	-3.773	-.222	.476	-1.739	.229							
[First_D=2]	-.477	.161	-.584	1.008	.106							
[First_D=3]	-.170	-.962	-2.142	.596	-.264							
[First_D=4]	-.106	-1.166	.713	-1.319	-.396							
[First_D=6]	2.859	-1.267	.164	.692	.291							
[First_D=8]	.667	2.134	-1.760	-1.386	.494							
[First_D=9]	-.212	-.457	2.108	1.483	-.491							
[Second_D=1]	.479	-.003	.111	.136	-.047							
[Second_D=2]	-.042	1.039	.487	.586	-.209							
[Second_D=3]	-.411	.446	.207	.062	.159							
[Second_D=4]	.053	-.243	-.184	.113	.176							
[Second_D=5]	-.608	-.287	-.448	-.514	.159							

	[Second_D=6]	.042	-1.286	-.252	-.839	-.458							
	[Second_D=7]	-.150	.083	-.164	-.567	.322							
	[Second_D=9]	-.063	.798	-.033	.875	-.352							
Hidden Layer	(Bias)						-1.424	1.101	.343	.339	-1.383	.110	.428
1	H(1:1)						-10.233	-1.412	.283	-1.157	8.328	3.219	-.039
	H(1:2)						.501	2.576	-2.309	-1.947	-.012	2.881	-.114
	H(1:3)						.802	-1.138	-3.823	1.095	.703	-1.828	3.354
	H(1:4)						-.959	2.597	-.032	-1.963	1.515	-2.146	1.580
	H(1:5)						.270	.271	-.405	.005	.149	.259	-.058

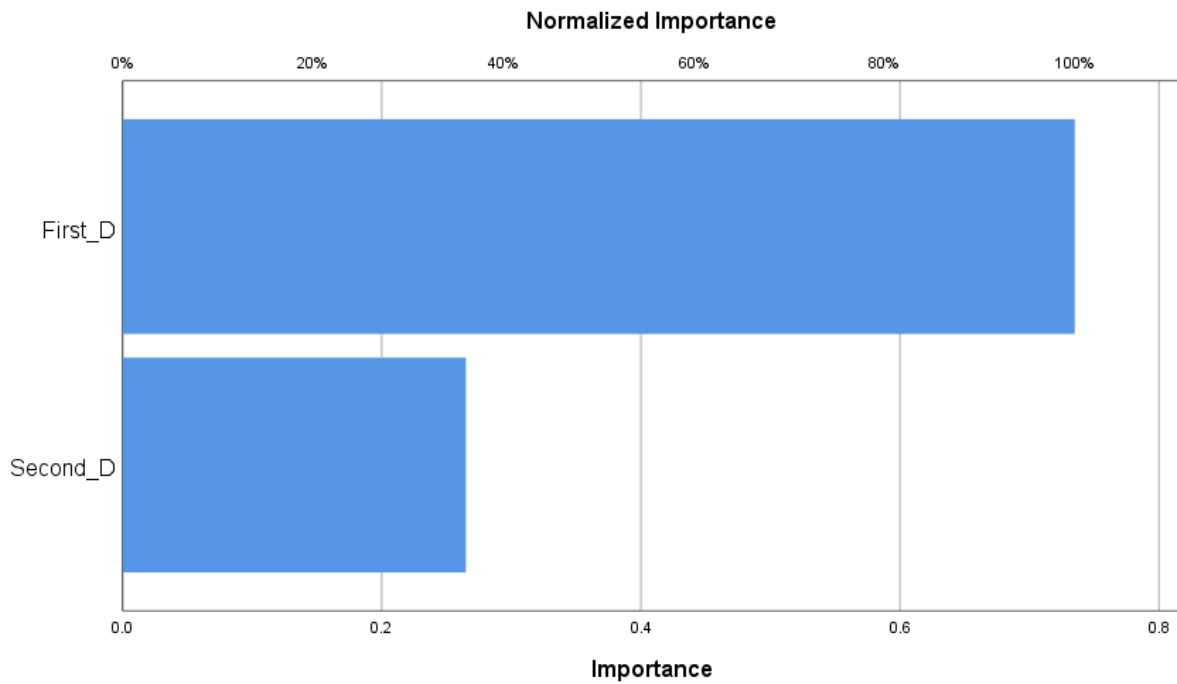
Classification

Sample	Observed	Predicted							Percent Correct
		1	2	3	4	6	8	9	
Training	1	12	0	0	0	0	0	0	100.0%
	2	0	3	0	0	0	0	1	75.0%
	3	0	0	3	0	0	0	0	100.0%
	4	0	0	0	1	0	0	0	100.0%
	6	0	0	0	0	7	0	0	100.0%
	8	0	0	0	0	0	3	0	100.0%
	9	0	0	0	0	0	0	2	100.0%
	Overall Percent	37.5%	9.4%	9.4%	3.1%	21.9%	9.4%	9.4%	96.9%
Testing	1	5	0	0	0	0	0	0	100.0%
	2	0	0	0	0	0	0	0	0.0%
	3	0	1	1	0	0	0	0	50.0%
	4	0	0	0	3	0	0	0	100.0%
	6	0	0	0	0	4	0	0	100.0%
	8	0	0	0	0	0	0	0	0.0%
	9	0	0	0	0	0	0	3	100.0%
	Overall Percent	29.4%	5.9%	5.9%	17.6%	23.5%	0.0%	17.6%	94.1%

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.735	100.0%
Second discourse in text	.265	36.1%



```

*Multilayer Perceptron Network.
MLP Leading_D (MLEVEL=N) BY First_D Second_D
  /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0
  /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50)
  /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALEDCONJUGATE
LAMBDAINITIAL=0.0000005
  SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000
  /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE
  /PLOT NETWORK
  /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15)
MAXEPOCHS=AUTO
  ERRORCHANGE=1.0E-4 ERRORRATIO=0.001
  /MISSING USERMISSING=EXCLUDE .

```

Multilayer Perceptron

Notes

Output Created		10-DEC-2020 16:22:32
Comments		
Input	Data	C:\Users\vitart0\OneDrive\Documents\MyDocs\Siience\Quarantine definition survey\SPSS\NN_EN_covid_ordinal_9D.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	104
Missing Value Handling	Definition of Missing	User- and system-missing values are treated as missing.
	Cases Used	Statistics are based on cases with valid data for all variables used by the procedure.
Weight Handling		not applicable

Syntax	MLP Leading_D (MLEVEL=N) BY First_D Second_D /PARTITION TRAINING=7 TESTING=3 HOLDOUT=0 /ARCHITECTURE AUTOMATIC=YES (MINUNITS=1 MAXUNITS=50) /CRITERIA TRAINING=BATCH OPTIMIZATION=SCALED ONJUGATE LAMBDAINITIAL=0.000005 SIGMAINITIAL=0.00005 INTERVALCENTER=0 INTERVALOFFSET=0.5 MEMSIZE=1000 /PRINT CPS NETWORKINFO SUMMARY CLASSIFICATION SOLUTION IMPORTANCE /PLOT NETWORK /STOPPINGRULES ERRORSTEPS= 1 (DATA=AUTO) TRAININGTIMER=ON (MAXTIME=15) MAXEPOCHS=AUTO ERRORCHANGE=1.0E-4 ERRORRATIO=0.001 /MISSING USERMISSING=EXCLUDE .	
Resources	Processor Time	00:00:00.42
	Elapsed Time	00:00:00.50

Case Processing Summary

	N	Percent
Sample Training	38	73.1%

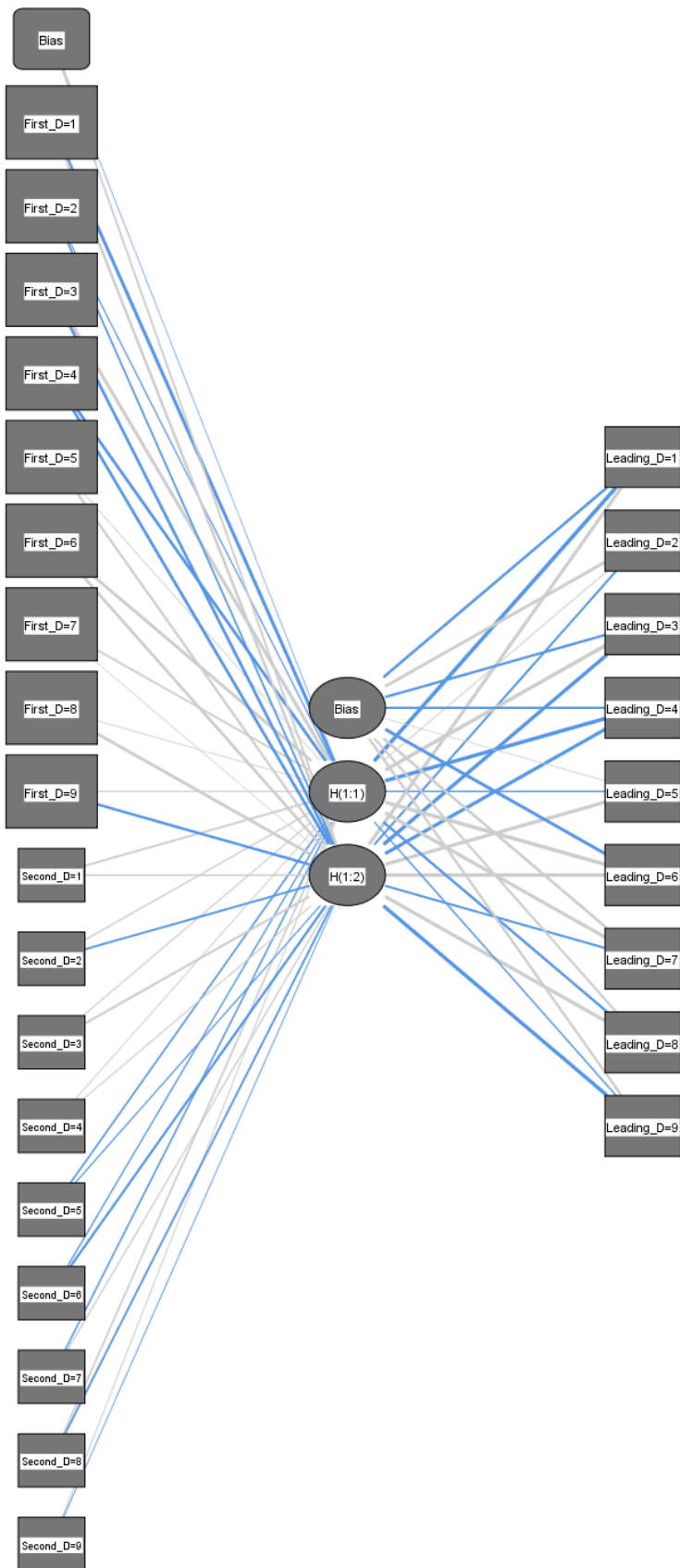
Testing	14	26.9%
Valid	52	100.0%
Excluded	52	
Total	104	

Network Information

Input Layer	Factors	1	First discourse in text
		2	Second discourse in text
	Number of Units ^a		18
Hidden Layer(s)	Number of Hidden Layers		1
	Number of Units in Hidden Layer 1 ^a		2
	Activation Function		Hyperbolic tangent
Output Layer	Dependent Variables	1	Leading discourse in meaning
		Number of Units	
	Activation Function		Softmax
	Error Function		Cross-entropy

a. Excluding the bias unit

— Synaptic Weight > 0
— Synaptic Weight < 0



Hidden layer activation function: Hyperbolic tangent
Output layer activation function: Softmax

	[Second_D=5		-0.433		-0.175								
]												
	[Second_D=6		-0.188		-1.150								
]												
	[Second_D=7		-0.297		.184								
]												
	[Second_D=8		.339		-0.553								
]												
	[Second_D=9		.133		-0.091								
]												
Hidden Layer	(Bias)				-1.865	2.918	-1.402	-1.141	.072	-2.981	1.952	.993	1.380
1	H(1:1)				-9.940	.122	6.666	-7.050	-2.284	8.111	3.824	-1.460	-2.271
	H(1:2)				3.288	-0.649	-4.832	-4.098	4.143	4.697	-0.889	4.407	-4.921

Classification

Sample	Observed	Predicted									Percent Correct	
		1	2	3	4	5	6	7	8	9		
Training	1	12	0	0	0	0	0	0	0	0	0	100.0%
	2	0	1	0	0	0	0	0	0	0	0	100.0%
	3	0	0	4	0	0	0	0	0	0	0	100.0%
	4	0	0	0	3	0	0	0	0	0	0	100.0%
	5	0	0	0	0	0	0	0	0	1	0	0.0%
	6	0	0	0	0	0	0	11	0	0	0	100.0%
	7	0	0	0	0	0	0	0	1	0	0	100.0%
	8	0	0	0	0	0	0	0	0	3	0	100.0%
	9	0	0	0	0	0	0	0	0	0	2	100.0%
	Overall	Percent	31.6%	2.6%	10.5%	7.9%	0.0%	28.9%	2.6%	10.5%	5.3%	97.4%
Testing	1	5	0	0	0	0	0	0	0	0	0	100.0%
	2	0	1	1	0	0	0	0	0	0	1	33.3%
	3	0	0	1	0	0	0	0	0	0	0	100.0%
	4	0	0	0	1	0	0	0	0	0	0	100.0%
	5	0	0	0	0	0	0	0	0	0	0	0.0%
	6	0	0	0	0	0	0	0	0	0	0	0.0%
	7	0	0	0	0	0	0	0	0	0	1	0.0%
	8	0	0	0	0	0	0	0	0	0	0	0.0%
	9	0	0	0	0	0	0	0	0	0	3	100.0%
	Overall	Percent	35.7%	7.1%	14.3%	7.1%	0.0%	0.0%	0.0%	0.0%	35.7%	78.6%

Dependent Variable: Leading discourse in meaning

Independent Variable Importance

	Importance	Normalized Importance
First discourse in text	.841	100.0%
Second discourse in text	.159	18.9%

